

DIN-Rail series

INTRODUCTION

Cluster metering is a mature idea to reduce overall costs of assets and installation process as well as minimizing customer's access to metering unit, addressing a reliable revenue protection solution. LY-KP12-C as a conventional DIN-Rail prepaid meter and LY-SM120 as a smart DIN-Rail prepaid meter both support STS and DLMS COSEM applicable to residential customers, accurately measuring & monitoring load and network parameters as well as armored with enhanced anti-tampering and prepayment functions.

These two DIN-Rail meters can be installed in a cluster box that has various capacities by the number of meters (1, 2, 5, 10) and communicate with the customer interface unit (CIU) through PLC or RF. LY-SM120 can communicate with a data collector installed in the same box through RS485 communication bus or directly communicate with standard data concentrator installed under transformer through PLC or RF communication, both are interacting with HES and vending system remotely.



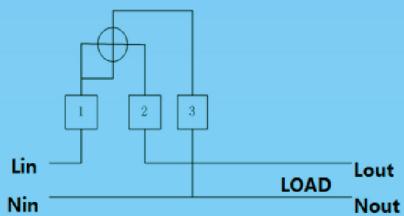
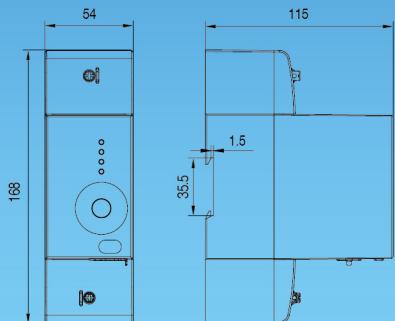
MAIN FUNCTIONS

 4 Quadrant Measurement	 TOU	 Load Profile	 12 Billing Periods	 Demand Monitoring
 Load Control	 Neutral Measurement	 Event and Alarm	 PQ Monitoring	 Postpaid Prepaid
 Neutral Line Relay	 STS Support	 DLMS COSEM Support	 IDIS Interoperability	 Anti-Tamper
 Firmware Upgrade	 RS485	 Hermetically or Ultrasonic Sealing		

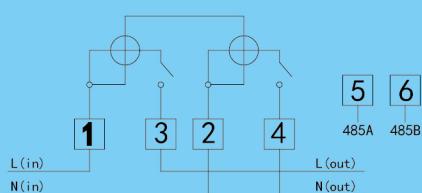
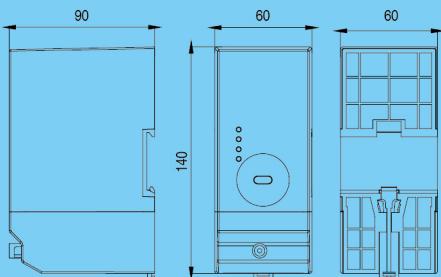
Cluster Metering DIN-Rail series

DRAWING & WIRING

KP12-C



SM120



SPECIFICATION

PARAMETERS		KP12-C	SM120
Electrical		Operating Mode (Postpaid/Prepaid)	Both
		Accuracy (active and reactive energy)	1 for Active (IEC62053-21) and 2 for Reactive (IEC62053-23)
		Connection type	1P2W
		Nominal Voltage	110V, 120V, 220V, 230V, 240V ±30%
		Nominal Current	5A, 10A
		Max Current	60A, 80A
		Starting Current (% Ib)	0.35% Ib
		Frequency	50/60Hz ±1%
		Power Consumption (V, I)	Voltage (1.5W, 2.5VA), Current (1VA)
		RTC	≤0.5s/d (IEC62054-21)
		Relay	100A, 250VDC, 100,000 times
		Local Communication	Optical Port
		CIU Communication	PLC/RF
		Uplink Communication	NA
		Credit & Alarm LEDs	1 credit LED (Three Colors), 1 Alarm LED
		Neutral Line Relay	NA
			Yes
Environmental	Temperature Range (Operation & Storage)	Operation (-40°C to +70°C), Storage (-40°C to +85°C)	Operation (-40°C to +70°C), Storage (-40°C to +85°C)
	Relative Humidity	≤ 95%	≤ 95%
Mechanical	IP Degree	IP54	IP54
	Meter Case	PC+10%GF	PC+10%GF
	Terminal	9mm, Brass	9mm, Brass
	Dimension , LWH (mm)	168x115x54	140x90x60
	Weight (kg)	Approx. 0.45	Approx. 0.5
Functional	Energy and/or Currency Credit Charging	Both	Both
	Load profile	6720 entries, 15 Channels, (Configurable interval: 1 to 60 min)	6720 entries, 30 Channels (Configurable interval: 1 to 60 min)
	Billing Periods	12 months	12 months
	Event log	550	550
	Measuring Values	kW, kvar, kWh, kVArh, kVA, V, I, F, PF,	kW, kvar, kWh, kVArh, kVA, V, I, F, PF,
	Tariffs	6	6
	Anti-Tampering	Magnetic Field, Meter cover open/terminal cover open, Reverse Energy	Magnetic Field, Meter cover open/terminal cover open, Bypass, Reverse Energy
	Load management Functions	Time & Power Thresholds, Over/under Voltage	Time & Power Thresholds, Over/under Voltage
Protocols & Standards		IEC62056-21/46/47(DLMS), IEC62052-11, IEC62053-21/23, IEC62055-31, etc.	IEC62056-21/46/47(DLMS), IEC62052-11, IEC62053-21/23, IEC62055-31, etc.

Headquarter:

- 📍 NO.666 Linyang Road,Qidong, Jiangsu Province 226299,China
- 📞 +86 513 8311 8888
- 🌐 www.linyang.com/en

Shanghai:

- 📍 3F,Building 2,No.500 Shengxia Road, Pudong New Area, Shanghai 201210,China
- 📞 +86 21 5019 5110
- ✉️ marketing@linyang.com

